

May 29, 1961

Dr. Elliott C. Levinthal
c/o Dr. G.E.W. Wolstenholme
The Ciba Foundation
41 Portland Place
London W.1, England

Dear Elliott:

I'm sorry that we did not succeed in booking you into the Ciba House, but they were evidently full up as you will have learned on seeing this letter. However, I'm sure that they will be glad to offer their assistance, if any is needed, in getting alternative accommodations.

The program is moving along slowly, but I hope surely. Hap now has most of his circuits worked out and is starting to order the logic cards and so forth. This may seem a little slower than we had anticipated, but he is doing a methodical job and I suspect all is for the best. His scheme for digital control of the camera sweep is really a very clever one and in addition, it gives us a kind of computer control that may be invaluable in any other applications of sweep, for example, on storage tubes. Our Air Force contract award has been substantially confirmed and it should take effect on June 15.

We have done nothing further about storage tubes, but from several impressions it seems likely that it will be necessary to digitize the video information in order to take full advantage of the storage. An interesting and fairly straightforward scheme for pulse coded video was presented in a paper in the September, 1960, Proceedings of the IRE by R.L. Carbrey at the Bell Telephone Laboratories at Murray Hill, New Jersey. The system is built around a beam coding tube and I think we would be able to do a great deal of the necessary adaptation around this particular component. I will leave it to your own judgment whether it would be worthwhile for you to take time to contact this group on your way home now, or whether we might just as well put this off until a little later on. If, as I have some vague recollection, you are returning to New York for a meeting in July, there would be no hurry about it. Russell Morgan, from the Radiology department at Johns Hopkins was here a couple of weeks ago, and we had occasion to discuss some critical applications of storage tubes in connection with image intensification. Although his end applications are quite different from ours, he faces somewhat similar problems of linearity and would also be very pleased to have a good video-differencing arrangement.

As far as I know, there has been no formal reaction still from electrical engineering concerning the medical engineering laboratory.

Sincerely,

Joshua Lederberg